Applicant : Arkady Garbar et al.
Serial No. : 10/518,227
Filed : October 17, 2005
Page : 5 of 7

Attorney's Docket No.: 17706-0004US1

REMARKS

Claims 35-42, 44-46, and 48-51 are pending.

Claim 35 has been amended to require washing and drying the metal nano-powder prior to coating and de-agglomerating. Support for this amendment is found, for example, on p. 3 of the specification. Claim 51 has also been amended to make clear that the metal nano-powder is washed and dried prior to coating. Applicants request entry of the amendments because they address the construction of "de-agglomerating" that the Examiner has adopted. Applicants did not submit the amendments earlier because the Examiner's construction of "de-agglomerating" was not clearly presented until the second office action.

Claims 35-36, 38, 41, 44-45, 48, and 50-53 stand rejected under 35 U.S.C. § 102(b)/§ 103 over Lin, U.S. 4,668,355 ("Lin"). Claims 37 and 40 stand rejected under 35 U.S.C. § 103 over Lin. Claims 42, 46, and 49 stand rejected under 35 U.S.C. § 103 over Lin in view of Khasin, U.S. 5,476,535 ("Khasin"). Claims 41-42 and 50 stand rejected under 35 U.S.C. § 103 over Lin in view of Yadav et al., US 2004/0262435 ("Yadav"). Applicants request the Examiner to reconsider and withdraw these rejections.

Each of the pending claims now recites a process for producing a metal nano-powder that includes, *inter alia*, leaching a metal alloy to form a metal nano-powder; washing and drying the metal nano-powder; coating the washed and dried metal nano-powder; and de-agglomerating the coated metal nano-powder. None of the cited references, alone or in combination, describes or suggests this particular process. Lin, the primary reference upon which all the outstanding rejections are based, describes a process for extracting magnetic particles from a surrounding matrix that involves treating the matrix with an aqueous solution (e.g., an aqueous citrate or ammonia solution). The solution forms a passivating layer about the particles. However, nowhere does Lin describe de-agglomerating the particles following treatment with the aqueous solution.

The Examiner maintains that Lin teaches de-agglomeration "by disclosing the steps of passivating (coating) about each particle and collecting the free particles via extraction from the surrounding matrix followed by rinsing to remove any unwanted contaminants (col. 5, line 50 to

Applicant : Arkady Garbar et al.
Serial No. : 10/518,227
Filed : October 17, 2005
Page : 6 of 7

Attorney's Docket No.: 17706-0004US1

col. 6, line 4 and col. 6, line 53 to col. 7, line 8)." The Examiner, therefore, is equating the steps of collecting and rinsing the particles with deagglomeration. Applicants disagree.

"Deagglomeration" refers to separating particles that have clustered together ("agglomerated"), thereby freeing the individual particles. The coatings described in the instant application facilitate this process. Lin, on the other hand, is merely collecting and purifying particles. Lin is not breaking up clusters of particles. Nevertheless, to make this distinction more clear, Applicants have amended claims 35 and 51 to recite (i) washing and drying the coated particles and then (ii) de-agglomerating the washed and dried particles. The amended claims make clear that the step of de-agglomeration occurs _after_ washing and drying. Lin never subjects washed and dried particles to "de-agglomeration," even under the Examiner's interpretation of "de-agglomeration."

Khasin likewise fails to describe de-agglomerating coated, washed, and dried particles. Khasin describes subjecting metal particles to ultrasonic oscillations during the leaching step in order to improve penetration of the leaching agent into the particles. Khasin does not coat the leached particles, nor does Khasin de-agglomerate particles _after_ leaching. Although Yadav describes de-agglomerating nanopowders, the powders are produced by processes that are substantially different from both the claimed process and from the process described in Lin (the primary reference). Therefore, there would be no reason to combine Yadav's de-agglomeration protocol with Lin, particularly where Lin's particles apparently do not exhibit the agglomeration problem that Yadav addresses.

Because none of the cited references, alone or in combination, describes or suggests the claimed process, the outstanding rejections should be withdrawn, and a notice of allowance issued.
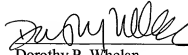
Please apply any charges or credits to deposit account 06-1050.

Applicant : Arkady Garbar et al.
Serial No. : 10/518,227
Filed : October 17, 2005
Page : 7 of 7

Attorney's Docket No.: 17706-0004US1

Respectfully submitted,

Date:_____9|17|08_____

Dorothy P. Whelan
Reg. No. 33,814

Fish & Richardson P.C.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (877) 769-7945

60518496.doc